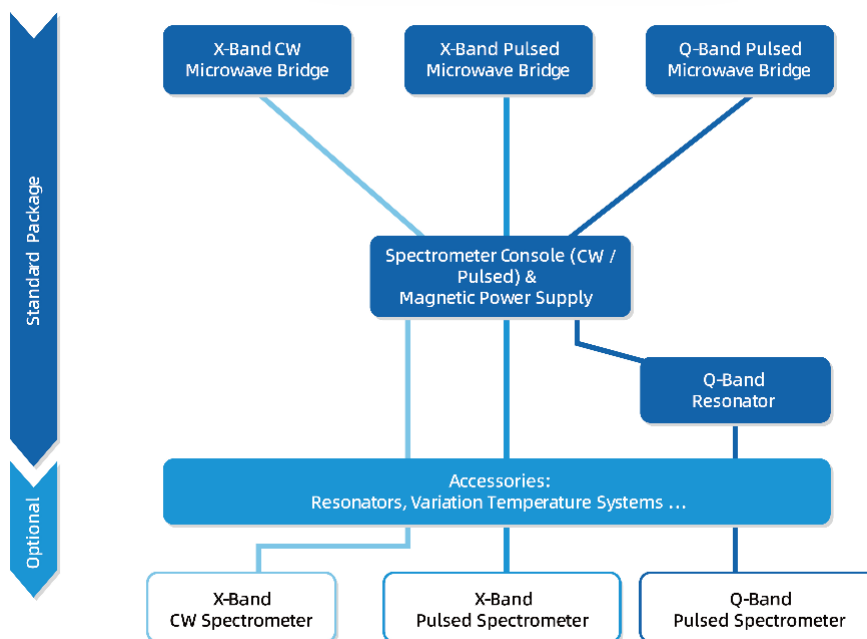


EPR Upgrade (CW EPR/Pulsed EPR, X/Q-band 対応)

- ・老朽化した制御・検出モジュールを CIQTEK の最新ハードウェアに置き換え、システムの最適化を図ることで、既存のEPR装置を活かしながら性能を大幅に向上させることが可能です。
- ・連続波（CW）およびパルスEPRに対応しており、様々な仕様の旧モデルと高い互換性を備えています。

✓ Upgrade Configuration:



✓ Benefits of the Upgrade:

Higher sensitivity

極低ノイズのマイクロ波源と
検出技術による高感度化

Better resolution

精密な磁場スキャン制御
技術による高分解能化

Competitive price

新規装置の導入に比べて
高いコスト効率を実現

Rapid Upgrade

短期間（2~6ヶ月程度）で
アップグレード可能

株式会社エルエイシステムズ
L.A.Systems Incorporated(L.A.S)

✓ Standard Package:

◆ CW Microwave Bridge



Specifications	X-band	Q-band
Microwave frequency	9.2 to 9.9 GHz	≈ 34 GHz
Microwave power	up to 200 mW	50 to 80 mW
Microwave attenuator	0 to 60 dB in 1 dB steps	0 to 60 dB in 1 dB steps
Size	85 × 62 × 18 cm	56 × 56 × 13 cm
Others	Expandable to Q-band	-

◆ Pulsed Microwave Amplifier



Specifications	X-band	Q-band
Amplifier power	450W (Microwave amp.)	150W (Solid-state amp.※)
Size	48 × 44 × 22 cm	43 × 35 × 15 cm

※Key Features of Solid-state amplifiers

- Highly stable with minimal drift
- Long service life
- Compact
- Energy-efficient (do not require high-voltage power supplies)

◆ Spectrometer Console & Magnetic Power Supply



CW Part Features

- 1. Magnetic Field Controller:**
Magnetic field stability in sample region: 10 mG/hour
Operating range: -0.1 to 1.8 T
- 2. Digital Lock-in Detection**
- 3. Ultra Stable Magnet Power Supply**
- 4. Modulation Frequency Range:** 0.5 to 120 kHz

Pulsed Part features

Data Acquisition Unit

- 2 channels
- Sampling rate: 1 GHz
- Supports internal and external trigger modes

Pulse Generator

- 12 digital channels
- Time resolution: 0.05 ns

✓ Options:

◆ Resonators

- High-Q Resonator
- Dual Mode Resonator
- Pulsed Resonator
- ENDOR Pulsed Resonator



◆ VT System

- Liquid Helium Continuous-Flow Cryogenics System
- Liquid Helium-free Dry Cryogenic System
- Liquid Nitrogen Variable Temperature System



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